APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/020,382	12/14/2001	Timothy Roy Block	ROC920010307US1	2244

7590 12/15/2005	EXAMINER
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ART UNIT	PAPER NUMBER
2145	

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DATE MAILED: 12/15/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

	Application No.	Applicant(s)
Office Action Summary	10/020,382	BLOCK ET AL.
	Examiner	Art Unit	
	Jeffrey R. Swearingen	2145	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>*12/14/01*</u>.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-25* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-25* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on <u>*14 December 2001*</u> is/are: a)☒ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some *   c)☐ None of:

        1.☐ Certified copies of the priority documents have been received.

        2.☐ Certified copies of the priority documents have been received in Application No. _____.

        3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date <u>*12/14/01*</u>.

4)☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .

5)☐ Notice of Informal Patent Application (PTO-152)

6)☐ Other: _____ .

DETAILED ACTION

Information Disclosure Statement

1.   The listing of references in the specification is not a proper information disclosure statement. 37

CFR 1.98(b) requires a list of all patents, publications, or other information submitted for consideration by

the Office, and MPEP § 609 A(1) states, "the list may not be incorporated into the specification but must

be submitted in a separate paper." Therefore, unless the references have been cited by the examiner on

form PTO-892, they have not been considered.

Claim Rejections - 35 USC § 101

2.   35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of
> matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the
> conditions and requirements of this title.

3.   Claims 21-25 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-

statutory subject matter. Claims 21-24 are directed toward a computer program, which is not embodied

on any computer-readable medium. Claim 25 is directed to a computer-readable medium. However, the

disclosure of the invention, has not limited the definition of computer-readable media to tangible

embodiments. On page 8, paragraph 22 of the disclosure, the computer-readable medium is defined as

tangible embodiments (e.g. non-writable storage media and writable storage media) and intangible

embodiments (e.g. communications media such as wireless communications, signal-bearing media). As

such, claim 25 is not limited to tangible embodiments, and therefore is not statutory.

4.   To overcome this type of 101 rejection, the claims and specification must be amended to limit

embodiments to computer programs stored on computer-readable storage media that is tangibly

embodied.

Claim Rejections - 35 USC § 112

5.   The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

6.   Claims 1-25 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. Applicant has claimed a two-layer version of the commonly known OSI model. The independent and dependent claims, as well as the specification, lead the Examiner to believe that Applicant has designed this new version of the OSI model with the "second" layer being the physical layer and the "first" layer being an unknown higher layer which is an apparent composite of the data link, network, transport, session, application, and presentation layers of the OSI model in common use.
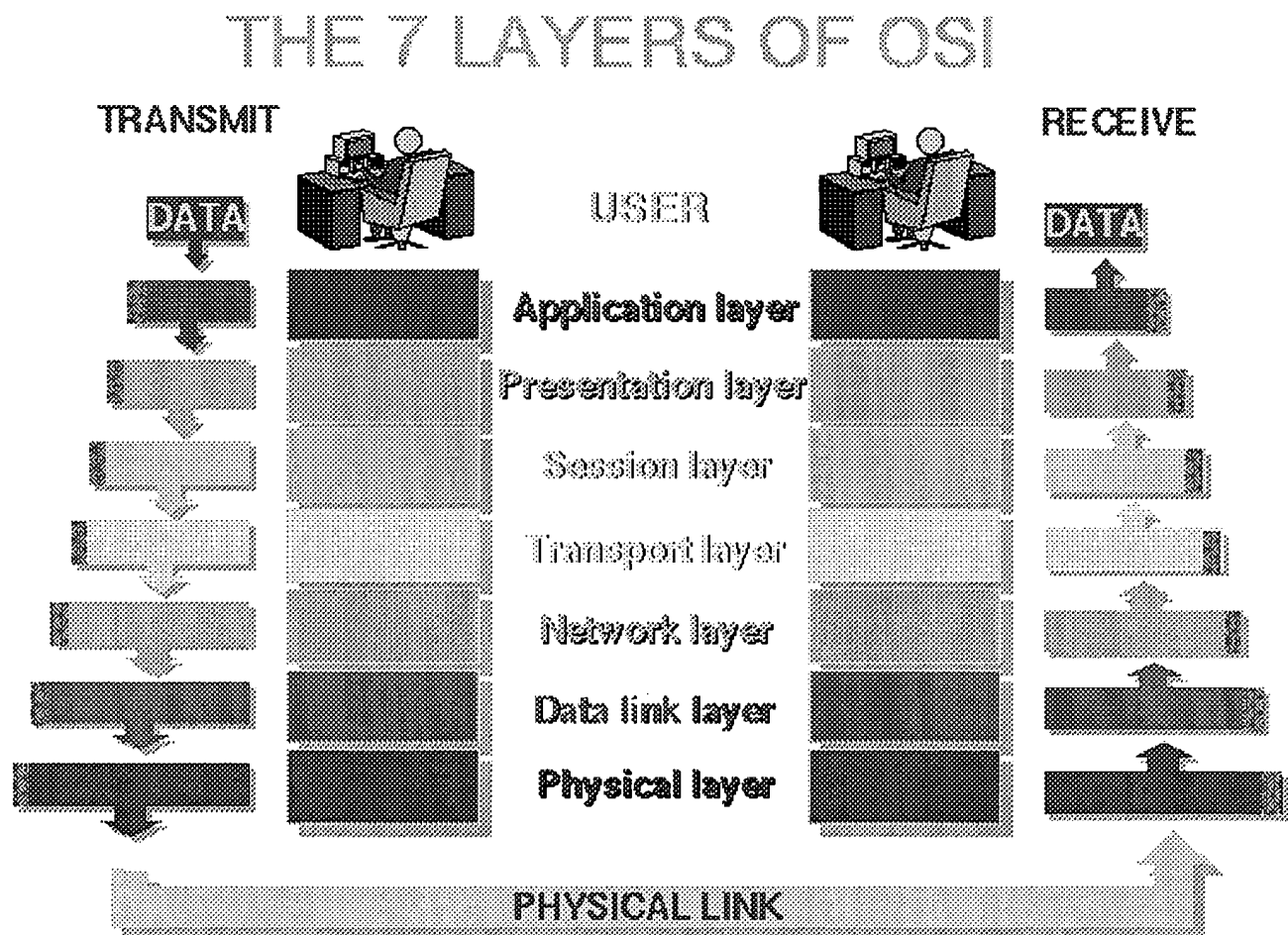
7.   For the courtesy of Applicant, a diagram of the OSI model is included from the Abdus Salam International Centre for Theoretical Physics Programme of Training and System Development on Networking and Radiocommunications, dated January 1998, which can be referenced at http://www.ictp.trieste.it/~radionet/1998_school/networking_presentation/index.html. The reason that this diagram is relevant to this rejection is the visualization of the fact that only the physical layer can transmit across to the physical layer of another machine. Claim 1, taken without its dependent claims, can read as sending data directly between layers other than the physical layer of the OSI model.

8.   Applicant's invention destroys the OSI model and the point of having multiple layers. During encapsulation, the outer header is added to the present data without altering the data that already exists. No method exists in current networking theory or implementation that allows for alteration of an interior encapsulated data fragment, segment, frame, packet, etc. at the same time as it is being further.

9.   Applicant's definition of identifier is conflicting with itself. Applicant has claimed the creation of a single identifier to be implemented in "both" layers at the same time, apparently occurring at the lowest or physical layer. Applicant states on page 11, paragraph 28 of the specification that each individual layer can have its own unique identifier. Applicant further states that each identifier can be a global identifier

and a unique identifier. Applicant further states that each identifier can be "universally unique". The phrase "universally unique" is contradictory on the surface since "universal" and "unique" are two opposing terms. Something that is "universal" in nature is not "unique" in nature. Applicant speaks to creating an identifier constituting a global identifier and a unique identifier. It is unclear if this is what Applicant means by a "universally unique" identifier. It is unclear how a global and unique identifier are created and/or supported by the specification.

THE 7 LAYERS OF OSI

TRANSMIT

RECEIVE

USER

Application layer

Presentation layer

Session layer

Transport layer

Network layer

Data link layer

Physical layer

PHYSICAL LINK

10.   The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

11.   Claims 1-5, 7, 9-15, 19-23, and 25 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

12.   The term "first protocol layer" in claims 1, 2, 5, 7, 9, 10, 11, 14, 15, 21, 22, 23, and 25 is a relative term which renders the claims indefinite. The term "first protocol layer" is not defined by the claims, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention. It is unclear if the first protocol layer is the layer closest to the physical layer or the layer farthest from the physical layer. This is true also for the second protocol layer.

13.   The terms "lowest protocol layer" and "highest protocol layer" in claims 3, 4, 12, 13, 19, and 20 are relative terms which render the claims indefinite. The terms "lowest protocol layer" and "highest protocol layer" are not defined by the claims, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention. It is unclear if the lowest protocol layer is the layer closest to the physical layer or the layer farthest from the physical layer. This is true also for the highest protocol layer.

Claim Rejections - 35 USC § 102

14.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

15.   Claims 16, 18-19, and 24 are rejected under 35 U.S.C. 102(b) as being anticipated by Zinky et al. ("Visualizing Packet Traces").

16.   In regard to claim 16, Zinky disclosed *a method of assigning an identifier to data processed through one or more protocol layers of one or more computers over a network, each protocol layer having a header, the method comprising: reserving a space for the identifier in the header of each protocol layer;*

generating the identifier at one of the protocol layers; and storing the identifier in the reserved space. The

Protocol Analyzer of Zinky showed a packet with a header including an identifier. See Figure 4. In order

to have the identifier included in the header, space was reserved for the identifier in the header and the

identifier was generated and stored in the reserved space.

17.   In regard to claim 18, Zinky was applied as in claim 16. Zinky further disclosed *a sending*

computer and a receiving computer; and wherein reserving a space for the identifier in the header of each

protocol layer comprises reserving a space for the identifier in the header of each protocol layer of the

sending computer. The sending and receiving computer were inherent to Zinky. The reservation of

space for the identifier was previously addressed in claim 16.

18.   In regard to claim 19, Zinky was applied as in claim 18. Zinky further disclosed *generating the*

identifier at the lowest protocol layer of the sending computer. See the rejection for claim 16.

19.   Claim 24 is substantially the same as claim 16.

Claim Rejections - 35 USC § 103

20.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness

rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

21.   Claim 17 is rejected under 35 U.S.C. 103(a) as being unpatentable over Zinky.

22.   In regard to claim 17, Zinky was applied as in claim 16. Zinky failed to disclose that the first four

bytes of the header were reserved for the identifier, but rather disclosed that an identifier was used in the

header. It would have been obvious to one of ordinary skill in the art to insert any length of identifier in

the header at any location in the header to facilitate ease of data transfer over the network protocol.

Conclusion

23.   The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Iren, Sami. "The Transport Layer: Tutorial and Survey". ACM Computing Surveys. Volume 31, Issue 4.

December 1999. pp. 350-404. ACM Press.

Hays, Bill et al. "A Layered Networking Protocol Designed to Minimize Complexity." Proceedings of the

1988 ACM Sixteenth Annual Conference on Computer Science. ACM Press. Atlanta, GA. 1988. pp. 578-

585.

Li, Renqi et al. "Security Issues with TCP/IP". ACM SIGAPP Applied Computing Review. Volume 3, Issue

1. Summer 1995. ACM Press. pp. 6-13.

Any inquiry concerning this communication or earlier communications from the examiner should

be directed to Jeffrey R. Swearingen whose telephone number is (571) 272-3921. The examiner can

normally be reached on M-F 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor,

Jason Cardone can be reached on 571-272-3933. The fax phone number for the organization where this

application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application

Information Retrieval (PAIR) system. Status information for published applications may be obtained from

either Private PAIR or Public PAIR. Status information for unpublished applications is available through

Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should

you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC)

at 866-217-9197 (toll-free).

/Jason Cardone
Supervisory Patent Examiner
Art Unit 2145